DOCUMENT RESUME

ED 399 418 CE 072 526

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TITLE Integrating Work and Learning for Superior Performance.
INSTITUTION Andersen Worldwide, S.C., St. Charles, IL.
PUB DATE 2 Mar 96
NOTE 6p.; Paper presented at the Annual Conference of the Academy of Human Resource Development (Minneapolis, MN, March 2, 1996). For a related document, see CE 072 525.
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adult Education; Classroom Techniques; *Corporate Education; *Education Work Relationship; *Experiential Learning; Instructional Effectiveness; *Integrated Activities; *Learning Activities; Learning Processes; Lifelong Learning; Models; Prior Learning; *Transfer of Training
IDENTIFIERS *Integrative Processes

ABSTRACT

A new integrative learning model has been designed to help corporate educators facilitate employee learning transfer and on-the-job performance. The model's components are as follows: (1) access new information, ideas, experiences, and/or perspectives; (2) identify relevance and value based on integrated life experience and wisdom; (3) engage in activities with a reflective learning approach; (4) apply new concepts within temporarily transformed life experiences; (5) apply new knowledge to life through action or guiding others to action; and (6) continually evaluate relevance and value in life and add to life experience and wisdom. Integrative learning hinges on the following support components: applying integrative leaning to build knowledge and skill, providing learning-safe work environments, coaching to think, teaming to innovate, and trusting to synergize. An earlier version of the model was used to teach human relations and reflection skills to more than 300 teachers in training at a public university in Florida. The learners demonstrated acquisition of desired competencies in the classroom and in their private and professional lives. A workshop on new ways of doing business was developed based on the new integrative learning model and will be tested on 1,000 managers employed by a major U.S. airline. (Contains 15 references.) (MN)

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ED 399 418

Integrating Work and Learning for Superior Performance

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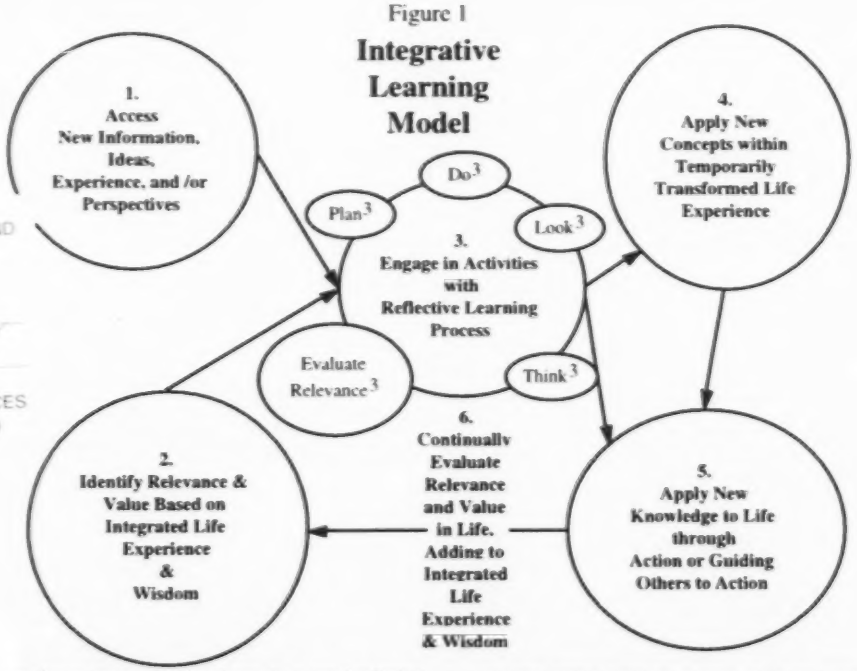
Worldwide, corporate education programs need to adapt to an accelerated pace of change and to increase learning transfer and superior on-the-job performance by learners. This paper introduces an Integrative Learning Model and four interwoven, interactive support components that facilitate integrating work and learning and foster enhanced learning transfer and superior performance.

Corporations throughout the world are undergoing an accelerated pace of change that requires effective learning transfer and an increased ability for corporate professionals to be *reflective practitioners* (Schon, 1983). Teaching-focused (largely instructor-led, *push*) paradigms are giving way to learning-focused (*pull*) paradigms (Montgomery, 1994). For professional consultants working in a global arena, training, education, and employee development (three cornerstones for Human Resource Development) (Nadler, 1979) are evolving into a requirement for learning to be integrated with work and for work to be integrated with learning (Lau, Fisher & Busby, 1995; Lau, Fisher & Seaman-Anderson, 1995). This integration of learning and work is a major aspect of the "learning organization" (Senge, 1990). Integrating learning with life experience is essential for effective learning transfer (see figure 1) (Montgomery, 1992). It is important to note that this integrative learning process applies to learning "on-the-job" (an area of life experience) as well as to learning in a focused learning environment.

Figure 1


Integrative Learning Model
1. Access New Information, Ideas, Experience, and /or Perspectives
2. Identify Relevance & Value Based on Integrated Life Experience & Wisdom
3. Engage in Activities with Reflective Learning Process
Do3
Look3
Think3
Evaluate Relevance3
Plan3
4. Apply New Concepts within Temporarily Transformed Life Experience
5. Apply New Knowledge to Life through Action or Guiding Others to Action
6. Continually Evaluate Relevance and Value in Life, Adding to Integrated Life Experience & Wisdom

(³ = moving to new perspectives beyond pre-existing limits) Copyright 1992, 1995 by Joel R. Montgomery. Used with permission.

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(Paper presented at the 1996 Conference of the Academy of Human Resource Development, February 29-March 3, 1996, Minneapolis, MN, Radisson Plaza Hotel.)

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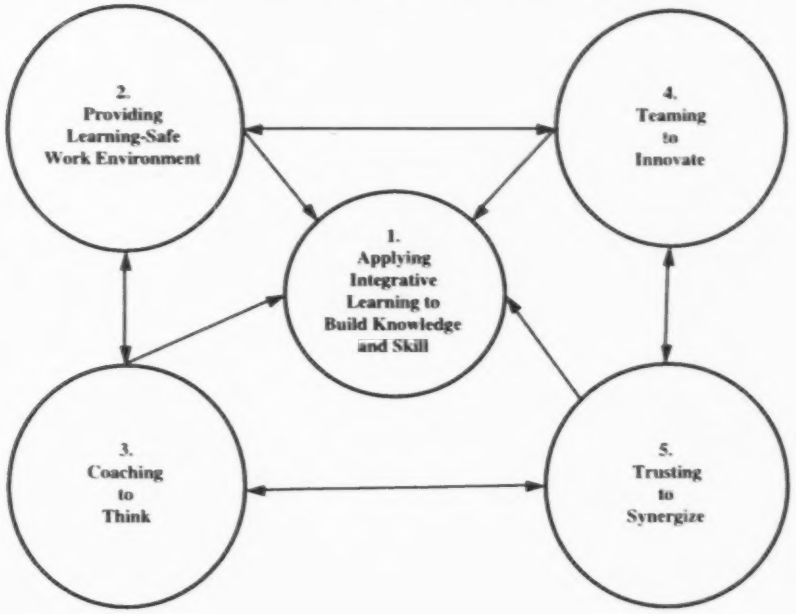
Integrative Learning

Each person brings to a potential learning experience the sum total of his integrated experience and wisdom. As he accesses the new information, ideas, experience, or perspectives, he begins to identify the potential relevance and value offered by the new experience. The next step is to work with the new information while engaging in activities involving the reflective learning process. As people move through the phases of the reflective learning process, they begin to integrate the new information with their life experience, potentially moving to new perspectives that allow them to move beyond pre-existing limits to thought, attitude, and action. Once the information is tenuously integrated, it is important for the learner to test the new information in a realistic context. When this produces satisfactory results, the learner will look for ways to apply the new concepts in work (life) contexts over time, always evaluating their effectiveness and relevance and deciding (consciously or not) whether or not to integrate the concepts fully into his life experience (Montgomery, 1992).

Figure 2

Support Components for Integrative Learning



Support Components

Four interwoven, interactive components support integrative learning in a corporate setting and lead to superior performance: *Learning-safe work* environment, coaching, teaming, and trusting (see figure 2). There are strong indicators that all these variables facilitate learning (Dean, 1995; Winslow & Bramer, 1994). Research has also indicated that transfer of learning is most effective when the learning environment resembles the work environment. Examples of these learning environments are classroom simulations, Microworld, and laboratory (Morecroft, 1994; Lane, 1994). Transfer can be even more successful when these same support components are present in both the learning and the *learning-safe* work environments. Artificial settings and the prefabricated material found in many learning environments are the possible barriers for direct

learning transfer. Another barrier in successful transfer of new learning is a lack of reinforcement and resources experienced by the learner when she re-enters the work environment (when the work environment is not *learning-safe*).

Working to Learn

Workers are challenged to learn new procedures and whole new ways of working and of looking at work. In order for them to grow into new organizational expectations, they need to build the competencies (knowledge and skills) necessary to allow them to do the job in their work context. To support this learning, organizations need to facilitate the acquisition of these competencies in a *learning-safe work* environment where learning from both successes and mistakes is encouraged and supported. Because human learning builds on our integrated life experience, organizational learning environments need to account for that experience, to work with an understanding of integrative learning , and to create an environment where learners engage in work activities using the same resources they would have in the workplace.

Teaming to Innovate

Business and industry have used focused teams to invent and innovate products and services. The secret of team dynamics is the tremendous source of creative energy within the teams (Mink, Owen, & Mink, 1993). In order to unleash the energy source a team-based learn-by-doing strategy can elevate the team to superior performance. The critical requirements for such a team in an integrative learning environment include conversation to share, coordination to synthesize and collaboration to execute.

Conversation to share requires each team member to assume personal responsibility, involvement and control of dialogue and subsequent actions created. Each team member should be willing to challenge her favorite conviction and mental model so to let team ideas flow freely within the team. Through conversations, each team member should visit each other's mental model and learn from it through asking fresh questions not to interrogate but to integrate into crystallized team ideas. Coordinate to synthesize includes open communication among team members through learning others' insights by not evaluating but appreciating others' perspective and not insisting on anyone's own belief or position. With the goal to synthesize, the team will develop better understanding of the targeted issues or topics. Collaborate to execute involves a series of questions that leads the team to create an action plan. The questions are: What should we be doing? What is stopping us? What can we do about it? Once the above questions are dealt with, the following questions should be asked and answered: Who cares? (Who knows about the problem?) Who can? (Who cares about the problem?) and Who do? (Who can do something?) Once an action plan is developed as a team, a *What if* scenario planning should be used to ensure the execution plan is possible.

Coaching to Think

A coach or facilitator is essential for the focused learn-by-doing team. The coach is the resource person who is positioned to provide on-demand assistance in guiding the team's thinking. The coach will ask insightful and challenging questions (Argyris, 1993) to stimulate thinking by the team and by each team member. Structured facilitation is not encouraged because of the possibility of hindering the team's or member's self-awareness of gaining insights of the targeted issues or topics. Structured facilitation tends to put a leash on members' train of thoughts and leads to only linear and serial thinking mode instead of systemic thinking. It is important for the coach to encourage the team members to ask "fresh questions", share issues, analyze alternatives and execute agreed plans.

Trusting to Synergize

Trust is a key organizational as well as a teaming issue that permeates the organizational culture, the work team, and the learner. Gibb (1991) identified four stages of trust development in any group. These are: Trust, Openness, Realization, and Interdependence (TORI). As a learn-by-doing team evolves through each of the four stages, there is a greater likelihood for synergy to take place, allowing the possibility for the greatest gain from the learning experience. For learners to participate actively in learn-by-doing teams and apply the new knowledge and skills on the job, the organization needs to create an environment that encourages collaboration and trust both in and out of the learning setting. From a team member's perspective, trust is always a two-way street between team members. In the trust stage of development, team members begin to develop trust as a team by revealing themselves at a personal level to the team in a way that creates a personal contact rather than a facade of impersonal facts. When accomplished, this leads to the openness stage where team members share information freely without fear of attacking or being attacked on a personal level by other team members. In the realization stage, the foundation of trust between members allows the team to move into shared vision and common goals. In the interdependence stage, the members collaborate and take action both jointly and independently, knowing (and trusting) that the work of each member is for the benefit of the entire team. When the learn-by-doing team has established a foundation of trust and has moved through these four stages, the products they generate as a team (both in terms of task outcomes and learning) will show evidence of synergy (that is, will be better than products reflecting the combination of the best single efforts of each member of the team).

Hypothesis:.

Corporate learning experiences will result in superior on-the-job performance by learners when the principles of integrative learning are consciously applied and supported by these four interwoven, interactive, components: learning-safe "work" environment, coaching, teaming, and trusting.

Results and conclusion:

An earlier version of this model was used to teach human relations and reflection skills to more than 300 teachers-in-training at a public university in Florida (Montgomery, 1989). Learners demonstrated acquisition of desired competencies both in the classroom and in their private and professional lives (Montgomery, 1992).

The ideas proposed in this paper are still in a testing stage. Various elements suggested here have been used successfully for more than two years by a major international consulting firm in its professional development programs for more than 30,000 consultants in its global practice (Montgomery, 1994). The firm's successes to date have led to a commitment to create learning environments that help the firm's consultants build their skills as *reflective practitioners*. Some ongoing *learn-by-doing* research initiatives involving ideas proposed in this paper are listed below.

There is a lag time between the creation of new knowledge (learning) and its addition into the learner's integrated life experience and wisdom (see figure 1). Unless the learner is asked to apply this new knowledge immediately, it is difficult to measure the link between learning and transfer to the job. One way to create a more timely integration of the new knowledge is to have the learners engage in learning while they are on the job and to ask them to apply what they are learning on the job as a part of the learning experience. This concept will be tested when a *proof-of-concept* proposal using integrative learning in a *virtual classroom* distance learning project is approved for funding later this year.

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The principles of integrative learning were also taken into account in the planning for two professional development workshops for consultants. These will also be tested later this year.

After carefully considering four different learning approaches, one of the major U.S. airlines recently decided to use integrative learning in developing a workshop designed to prepare 1,000 managers to learn new ways of doing business and to integrate these new procedures as a part of their operations management. This project is also underway and will be tested in a few months.

More research is needed regarding the results of applying integrative learning and the four interwoven, interactive components to meet the learning needs of organizations.

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